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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,019

05/25/2006

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EXAMINER

GRAMLING, SEAN P

ART UNIT

PAPER NUMBER

2875

NOTIFICATION DATE

DELIVERY MODE

03/17/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/596,019	<b>Applicant(s)</b> NISHIOKA ET AL.	
	<b>Examiner</b> SEAN P. GRAMLING	<b>Art Unit</b> 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1 and 3** are rejected under 35 U.S.C. 102 (b) as being anticipated by *Fujita et al* (US 6,517,213).

3. Regarding claim 1, Fujita discloses a light emitting device using an LED chip 12 comprising a mounting substrate 36 having a recess and having a wiring portion for supplying power to the LED chip; the LED chip mounted on a bottom of the recess; a wavelength converting member 22 that is disposed so as to cover the recess and an edge area around the recess and that is excited by light emitted from the LED chip to emit light of a wavelength different from an excitation wavelength; and an emission control member 13 provided at a light output side of the wavelength converting member so as to allow emission of light coming from an area of the wavelength converting member that corresponds to the recess and to prevent emission of light coming from an area of the wavelength converting member that corresponds to the edge area around the recess (see Figures 1, 2 and 25, and column 9, line 17 through column 11, line 20).

4. Regarding claim 3, the emission control member 13 is a light blocking frame member disposed on the light output side of the wavelength converting member at a location corresponding to the edge area around the recess and the frame member has

an opening of substantially the same shape as the opening of the recess (see Figures 1, 2 and column 9, lines 28-32).

5. **Claims 1, 2, 5, 7-10 and 15-16** are rejected under 35 U.S.C. 102 (b) as being anticipated by *Lowery* (US 6,504,301).

6. Regarding claim 1, Lowery discloses a light emitting device using an LED chip 22 comprising a mounting substrate 30 having a recess and having a wiring portion for supplying power to the LED chip; the LED chip mounted on a bottom of the recess; a wavelength converting member 52 that is disposed so as to cover the recess and an edge area around the recess and that is excited by light emitted from the LED chip to emit light of a wavelength different from an excitation wavelength; and an emission control member 54 provided at a light output side of the wavelength converting member so as to allow emission of light coming from an area of the wavelength converting member that corresponds to the recess and to prevent emission of light coming from an area of the wavelength converting member that corresponds to the edge area around the recess (see Figure 2 and column 4, line 30 through column 6, line 60).

7. Regarding claim 2, the emission control member 54 is an optical member that is disposed at the light output side of the wavelength converting member 52 and has a light input portion facing the light output side of the wavelength converting member 52 and the light input portion of the optical member has an end of substantially the same shape as the open end of the recess (see Figures 2 and 3 and column 6, lines 54-60).

8. Regarding claim 5, the light output side of the wavelength converting member 52 is convex (see Figure 5).

9. Regarding claim 7, the emission control member 54 in Lowery is a lens disposed over the mounting substrate 36 to have an optical axis coinciding with an optical axis of the LED chip, and a wiring board 30 having a wiring portion 48 that is fixed to the mounting substrate so as to supply electric power to the LED chip 22; and a lens holder (32, 34) for positioning and fixing the lens on the wiring board, wherein a portion of the lens holder is located inside as compared with the outer diameter of the lens 54 (see Figures 2 and 3, and column 4, lines 30-35).

10. Regarding claim 8, the lens holder (32, 34) is tapered toward the mounting substrate (see Figure 2).

11. Regarding claim 9, the lens 54 is a hybrid lens (see Figure 2).

12. Regarding claim 10, either a top face or a side face of the mounting substrate 30 is fitted to the lens holder (32, 34) (see Figure 2).

13. Regarding claim 15, the light emitting device further comprises a light extraction increasing portion 50 provided on the light output side of the LED chip 22 so as to increase the efficiency of extraction of light from the LED chip by being combined with the LED chip and a sealing resin 50 filling the recess in the mounting substrate where the LED chip is mounted so as to seal the recess, wherein a top of the light extraction increasing portion located higher than a top of a wall of the recess (see Figure 2 and column 5, lines 27-65).

14. Regarding claim 16, the mounting substrate has a second recess 38 around the recess so that the resin can flow into the second recess (see Figure 2).

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 4 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Fujita et al* (US 6,517,213).

17. Regarding claim 4, an outer edge area of the wavelength converting member 22 in Fujita is compressed by the frame member pressed against the wavelength converting member (see Figures 1 and 2). Fujita does not specifically disclose that the wavelength converting member 22 be made of a material of high elasticity. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select a wavelength converting member 22 comprised of a material of high elasticity since it has been held that the selection of known material based on its suitability for the intended use for prior art parts does not make the claimed invention patentable over that prior art (*In re Lesin*, 125 USPQ 416).

18. Regarding claim 5, the light output side of the wavelength converting member 22 in Fujita is not of a convex shape. However, it would have obvious to one of ordinary skill in the art at the time the invention was made to form the light output side of the wavelength converting member 22 into a convex shape since it has been held that

lacking any criticality, changing the form or shape of prior art parts does not make the claimed invention patentable over that prior art (*In re Dailey*, 149 USPQ 47).

19. **Claims 6 and 11-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lowery* (US 6,504,301).

20. Regarding claim 6, Lowery does not specify that the density of the wavelength converting material in the wavelength converting member 52 increase toward the center. However, it has been held that lacking any criticality, changing the form or shape of prior art parts does not make the claimed invention patentable over that prior art (*In re Dailey*, 149 USPQ 47).

21. Regarding claims 11-14, Lowery discloses a protrusion (32) formed on the under surface of the lens holder, a lead electrode 44 provided on the mounting substrate to be connected to the wiring portion 48 of the wiring board 30 and a wiring land 46 that has substantially the same shape as the lead electrode 44 and that is formed on the wiring portion of the wiring board (see Figures 2 and 3), but does not specify that the lens holder (32,34) and the mounting substrate be engaged in either grooves or through holes formed on the wiring board 30. Lowery also does not disclose a metal foil around the fixed portion (32) of the lens holder for soldering. It would have been obvious to one of ordinary skill in the art at the time the invention was made solder the fixed portion 32 to the wiring board 30 and form a groove in the wiring board 30 in order to properly position the lens holder (32, 34) and mounting substrate on the wiring board 30.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN P. GRAMLING whose telephone number is (571)272-9082. The examiner can normally be reached on MONDAY-FRIDAY 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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